

CLAIMS

1. An adjuvant which is adapted to stimulate a B-lymphocyte cell surface receptor, CD40.
2. A vaccine including the adjuvant according to Claim 1.
- 5 3. A vaccine according to Claim 2 wherein said vaccine comprises a T-cell dependent and/or T-cell independent antigen, or part(s) thereof.
4. A vaccine according to Claim 2 wherein said adjuvant is a CD40 ligand, or part thereof.
- 10 5. A vaccine according to Claim 2 wherein said adjuvant is an antibody raised against said CD40 receptor, or a part thereof.
6. A vaccine according to Claim 5 wherein said antibody is monoclonal.
7. A vaccine according to Claim 5 wherein said antibody is humanised.
8. A vaccine according to Claim 3 wherein said antigen is soluble.
9. A vaccine according to Claim 3 wherein said antigen is a protein.
- 15 10. A vaccine according to Claim 3 wherein said antigen is a polysaccharide.
11. A vaccine according to Claim 3 wherein said adjuvant and antigen are

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joined theretogether.

12. A vaccine according to Claim 11 wherein said antigen is a protein or part thereof, and it is fused to said adjuvant so as to provide a fusion protein.

13. A vaccine according to Claim 2 comprising at least one cytokine.

5 14. A vaccine according to Claim 2 suitably formulated from administration to an individual or animal to be vaccinated.

10 15. A method for the manufacture of a novel vaccine capable of enhancing immunity which method comprises the selection of a suitable T-cell dependent and/or T-cell independent antigen, or part(s) thereof, and association or combination of said antigen with an adjuvant wherein said adjuvant is adapted to stimulate B-lymphocyte receptor, CD40.

16. A method according to Claim 15 wherein said vaccine is capable of enhancing T-cell independent immunity.

15 17. A system for the manufacture of a vaccine capable of enhancing T-cell independent or T-cell dependent immunity which system comprises a cell expressing a selected T-cell dependent and/or T-cell independent antigen, or part(s) thereof, and also an adjuvant capable of stimulating a B-lymphocyte receptor, CD40.

20 18. A system according to Claim 17 wherein said vaccine is capable of enhancing T-cell independent immunity.

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19. A system according to Claim 17 wherein one or both of said antigen and adjuvant is provided with a secretion signal whereby expression of one or both of said antigen or adjuvant results in secretion of one or both of said antigen or adjuvant from said cell.

5 20. A system according to Claim 17 wherein the expression of said antigen and adjuvant is adapted such that a single fusion protein is manufactured by said cell.

21. A system according to Claim 20 wherein said single fusion protein is adapted for secretion from said cell.

10 22. A nucleic acid molecule encoding an adjuvant according to Claim 1 ~~or a vaccine according to Claim 2.~~

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